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Kerry D. Hinson

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MARSHALL & MELHORN, LLC

FOUR SEAGATE

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TOLEDO, OH 43804

EXAMINER

MITCHELL, KATHERINE W

ART UNIT

PAPER NUMBER

3677

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DELIVERY MODE

07/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Art Unit: 3677

DETAILED ACTION

Rule 105 Request

1. The scope of 37 CFR 1.105 is extended to any assignee because the information required may be known to some members of the assignee even if not known by the inventors.

The authority for the Office to make such requirements arises from the statutory requirements of examination pursuant to 35 U.S.C. 131 and 132. An examiner or other Office employee may make a requirement for information reasonably necessary to the examination or treatment of a matter in accordance with the policies and practices set forth by the Director(s) of the Technology Center or other administrative unit to which that examiner or other Office employee reports.

Examiner is requesting any written descriptions or analyses, prepared by any of the inventors or assignees, of goods or services in competition with the goods or services the claimed subject matter has been embodied in. Specifically, examiner requests the information on the structural features of the conventional fastener assembly described in paragraphs [0002, 0003, and 0017-0019] used in the pressurization test (Fig 3), the standoff test (Fig 5) and the transmissibility test (Fig 6) of the disclosure; specifically, did the conventional fastener assembly include the fastener, retention sleeve, and engine cylinder/ valve head cover structure as is claimed with the wave spring assembly? Also, examiner requests any printed information on the threaded fastener and retention sleeve from ITW Automotive Products GmbH & Co of Iserlohn, Germany (para [0015])

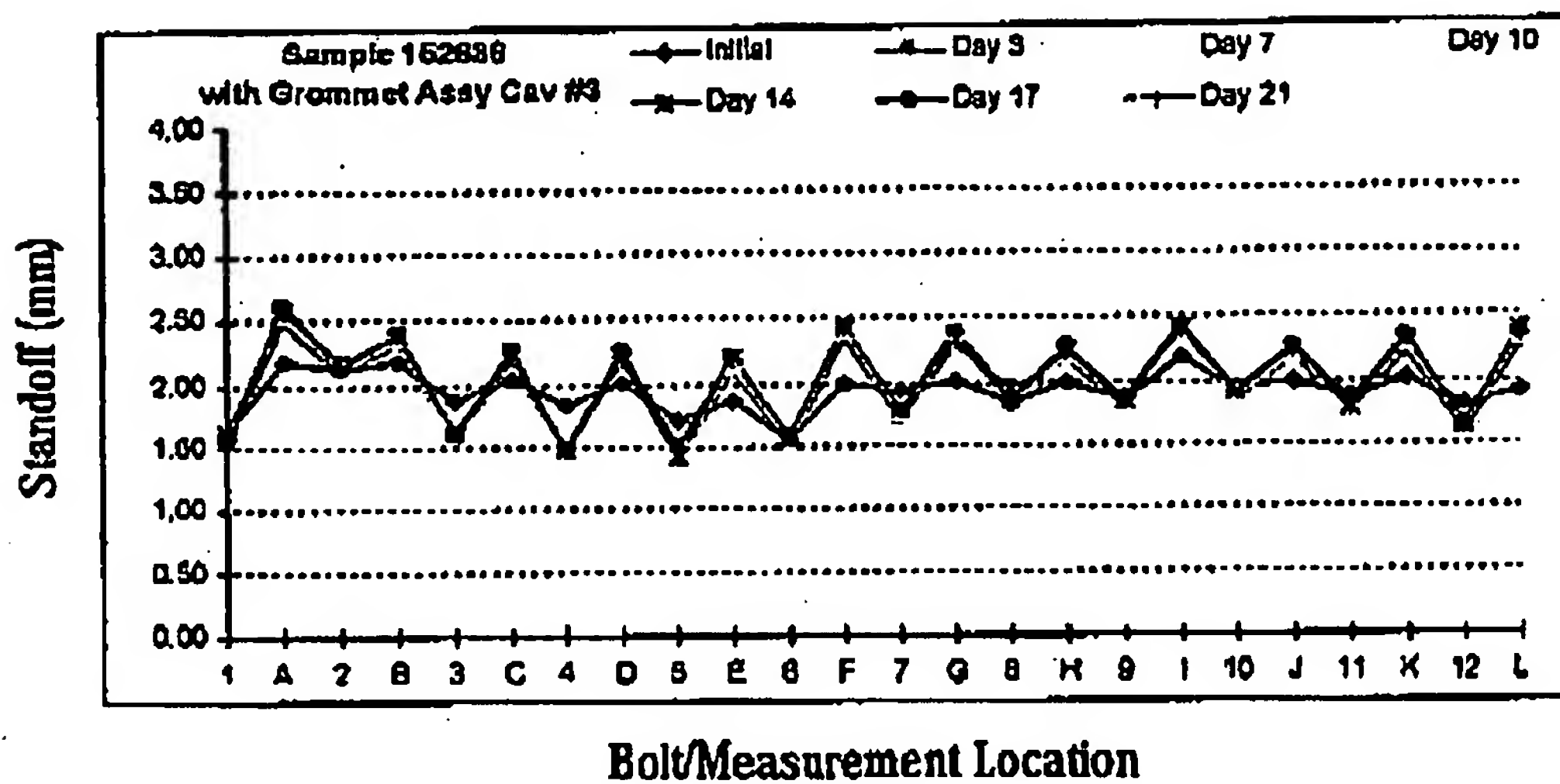


FIG. 3

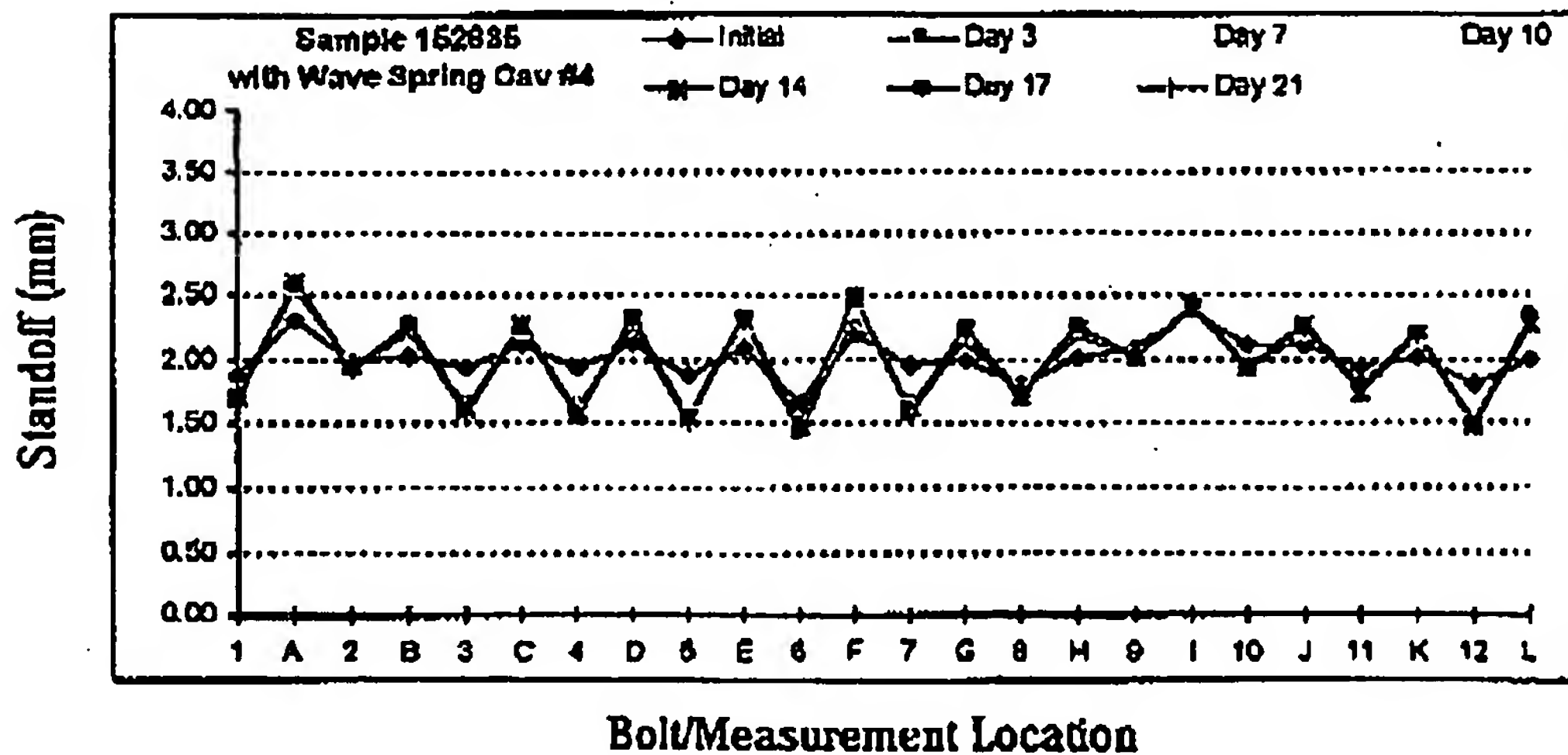


FIG. 4

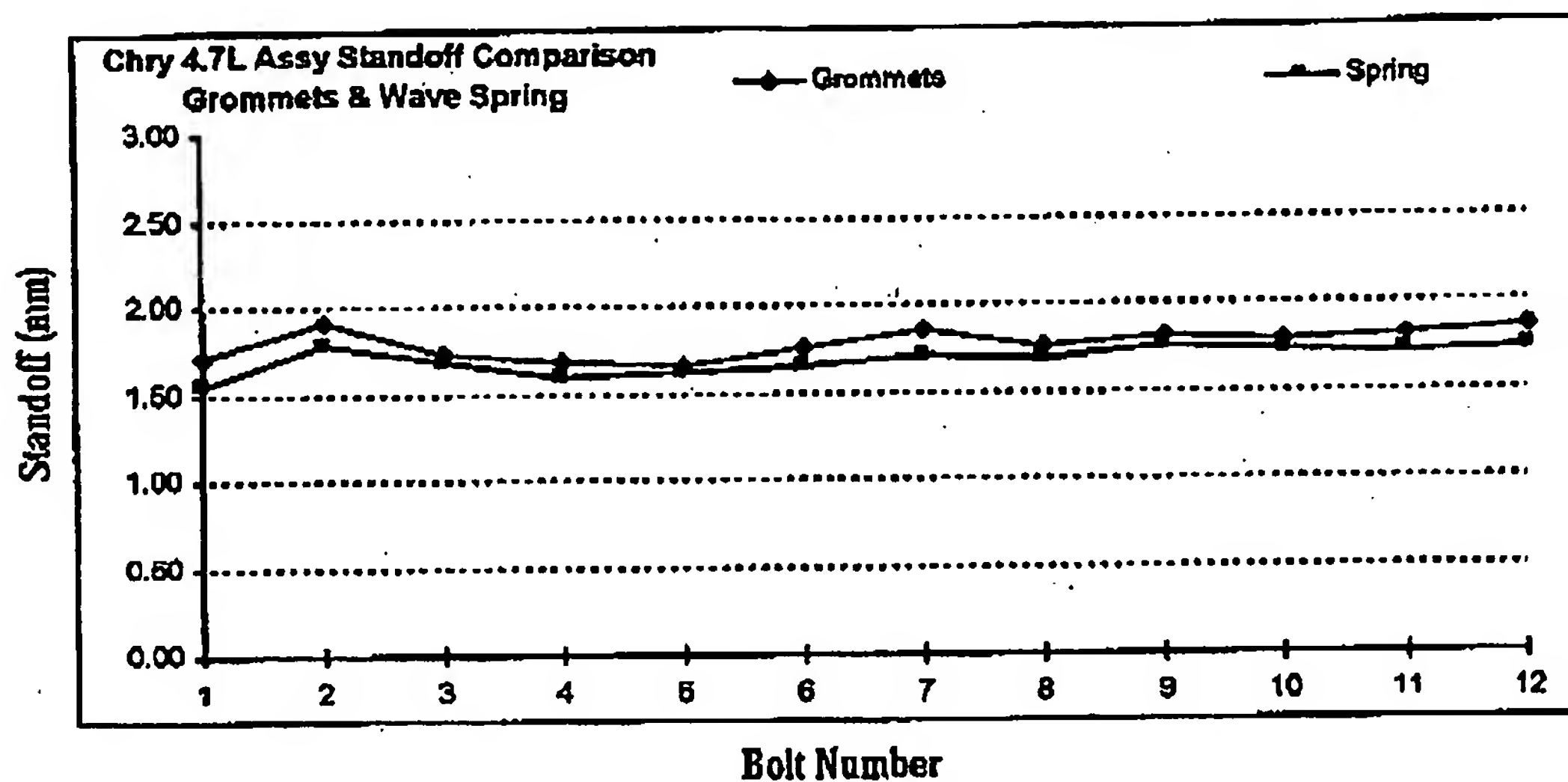


FIG. 5

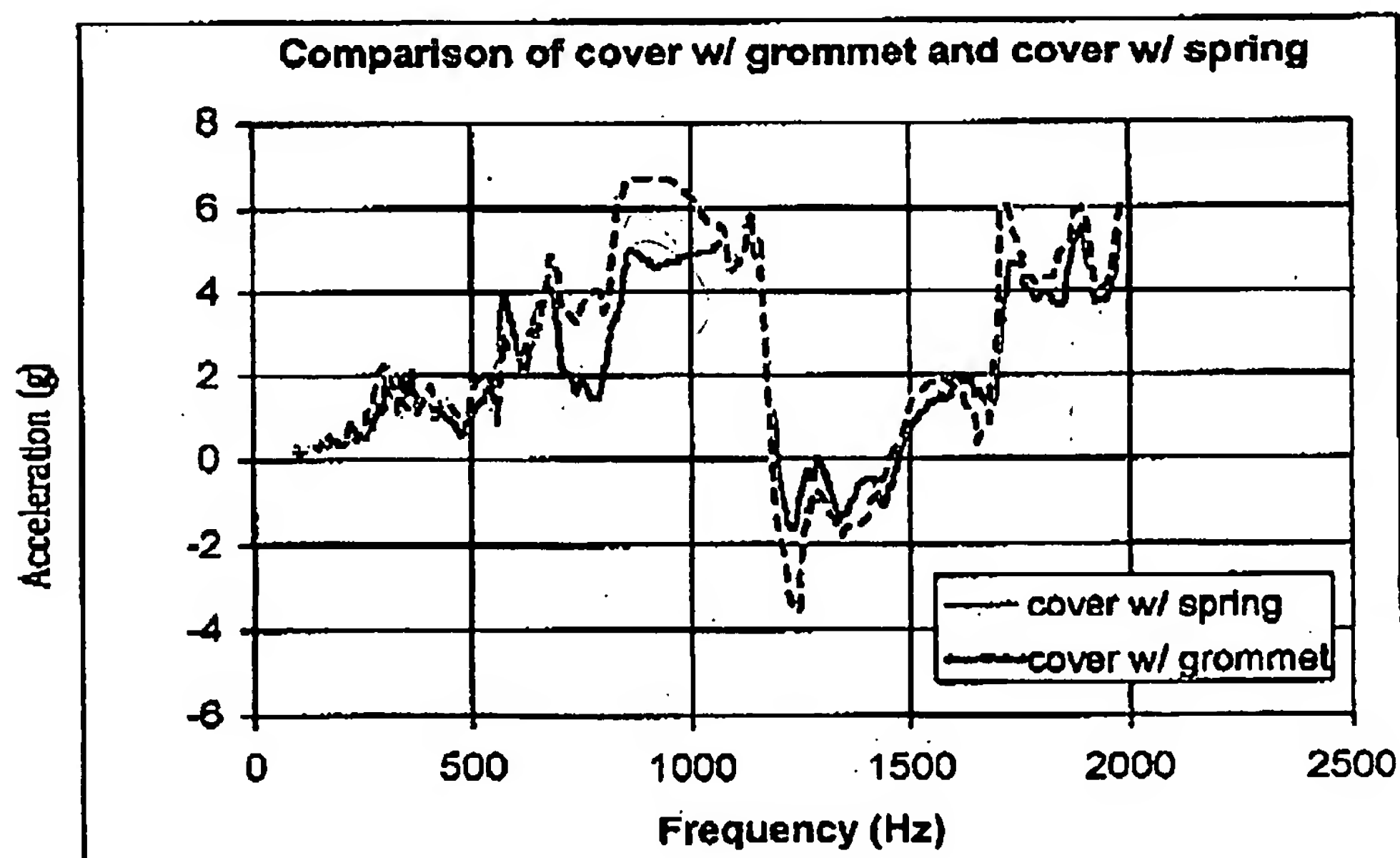


FIG. 6

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2. Please note the examiner of record has changed. Contact information is at the end of this action. This action is non-final.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,3,5-8,11-12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AARP) in view of Spirolox Compression Wave Springs, hereafter called Spirolox. Applicant has admitted that conventional fastener assemblies are known, and that the inventive step was replacing the rubber grommet of conventional assemblies with a wave spring. Since the graphs describe the performance difference between rubber grommets and wave springs when used with the same fastener assemblies, obviously the other properties, including the fastener and retention sleeve of metallic metal, fastener head having a radially projecting collar, and retention sleeve details, would remain the same, or the differences could not be attributed to the use of wave springs vs. rubber grommets. Examiner takes Official Notice that metallic fastener assemblies are the most common fastener assemblies for engine components, and notes that Spirolox discloses the wave springs as made of various metals. Wave Springs are well known in the fastener art, as documented by Spirolox, which describes the advantages of wave springs as including reduced space requirements, more precise load deflection characteristics, and smaller

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resulting assemblies - all desirable features in coupling a valve cover to a cylinder head of an engine, where weight is important and clearances can be very tight. Further, the wave springs are available in stainless steel where corrosion is considered a likely problem. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified AAPA in view of Spirolox to use accepted and known wave springs to minimize weight, improve load deflection characteristics, and allow repeated cycling in high temperature environments. Examiner takes Official Notice that multiple fasteners for coupling valve covers and cylinder heads are commonly used, and page 4 of Spirolox shows multiple wave springs used as a set, as is known in the art.

Conclusion

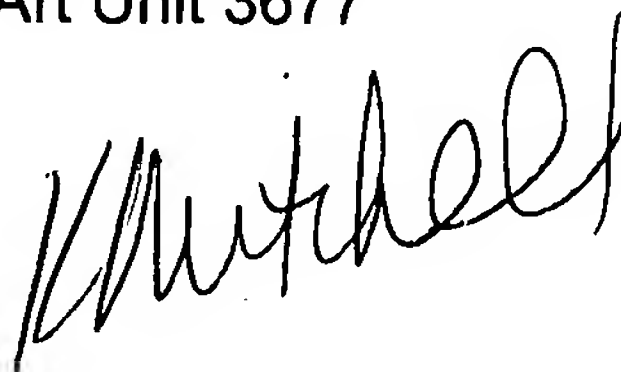
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Katherine W Mitchell
Primary Examiner
Art Unit 3677



Kwm
6/25/2007